Laurent Claessens

laurent@claessens-donadello.eu
18, rue Pasteur, 25000 Besançon
07 82 57 73 25 – 03 63 01 40 29
https://laurent.claessens-donadello.eu
https://github.com/LaurentClaessens

Software developer (C++, Java, Python)
Mathematics : numerical computation, differential geometry

36
French, Italian, English (fluent)

What I'm searching for

- Scientific research (mathematics, physics, ...);
- Software development (Python, C++, Java already known);
- Scientific computation, modeling, simulation.

Informatics

- Install, use and troubleshooting with **Linux**
- **Python** programming, including the packages of scientific computation **Sage**.
- Object oriented programming in **C++** (second year in informatics)
- Concurrent computing in **Java** (third year in informatics)
- **Scilab**, **Mathematica** and **Matlab**.

Education

2016-2017	Enter in third year of informatics as e-learning at Aix-Marseille.
2015-2016	C++, Java and numerical computation courses at university of Padua (Italy).
2013	Admitted at **agrégation** *externe de mathématique*
2007-2008	Postdoctoral position at the Pennsylvania State University (USA).
2003-2007	**Phd in mathematics** (differential geometry) at *Université catholique de Louvain* (Belgium). Title : *Locally anti de Sitter spaces and deformation quantization[1, 2, 3].*
1999-2003	**Graduate in physics** at *Université libre de Bruxelles* Title : *Symétries globales et linéaires en théorie relativiste des champs[4].*

Professional positions

2012-2015	Teaching in undergrad schools (12-18).
2011-2012	ATER (attaché temporaire de recherche et enseignement) at l'*Université de Franche-Comté*. Same task as the previous year.
2010-2011	Invited at *Université de Franche-Comté*. In charge of some courses of mathematics for students of first and second year in mathematics and biology.
2009-2010	In charge of exercises for some mathematics course for students in physics and engineering at *Université catholique de Louvain* (Belgium)[5]. I also gave an introduction course to **Matlab** for students in physics and agronomy : matricial computation, least square method, differential equations.
2008-2009	In charge of the exercises for some courses of mathematics for students in physics, mathematics and geography at *Université libre de Bruxelles.*

Realisations

Python I'm writing a module that serves to generate the `tikz` (LaTeX) code for a picture. This module relies on Sage, so that one can produce a `tikz` code for virtually anything Sage can compute or one can program in python.

The pictures of my documents are produced by this program.
`https://github.com/LaurentClaessens/phystricks`

C++ I wrote a backup software that I use everyday.
`https://github.com/LaurentClaessens/lora`

Java I wrote an actor system and an implementation that produces, from a LaTeX file, a new source file having recursively substituted every `\input` by the content of the file.
`https://github.com/LaurentClaessens/actors`
`https://github.com/LaurentClaessens/frtex`

LaTeX I wrote many texts for students and my research, as an example, this course for *l'agrégation* :
`http://laurent.claessens-donadello.eu/pdf/lefrido.pdf`
`https://github.com/LaurentClaessens/mazhe/`

PHP As exercise I'm writing my blog in php
`https://github.com/LaurentClaessens/phpBlog`
`http://laurent.claessens-donadello.eu/blog/php/frido_liens.php`

References

[1] Laurent Claessens. Locally anti de Sitter spaces and deformation quantization. Ph.D. thesis. 2007.
`arXiv:0912.2215`[math.DG]
`http://hdl.handle.net/2078.1/5354`.

[2] Pierre Bieliavsky, Yannick Voglaire, Laurent Claessens, and Daniel Sternheimer. Quantized anti de Sitter spaces and non-formal deformation quantizations of symplectic symmetric spaces. *Contemporary Mathematics*, (450), 2008.
`arXiv:0705.4179v1`[math.QA].

[3] Laurent Claessens and Stephane Detournay. Solvable symmetric black hole in anti-de Sitter spaces. *J. Geom. Phys.*, 57:991–998, 2007.
`arXiv:math.DG/0510442`.

[4] Laurent Claessens. Symétries globales et linéaires en théorie relativiste des champs. Master's thesis, Université libre de Bruxelles, May 2003. Direction: Glenn Barnich
`http://laurent.claessens-donadello.eu/pdf/memoire.pdf`.

[5] Laurent Claessens. BTZ black hole from the structure of $\mathfrak{so}(2,n)$. 2009.
`arXiv:0912.2267v3`[math.DG].